

Lectotypification of *Marsilea quadrifolia* L. (Marsileaceae)

DUILIO IAMONICO

Laboratory of Phytogeography and Applied Geobotany, Department DATA, Section Environment and Landscape, University of Rome Sapienza, 00185 Rome, Italy,
e-mail: d.iamonico@yahoo.it

ABSTRACT.—The typification of the binomium *Marsilea quadrifolia* L. (Marsileaceae) is discussed. To fix the application of the species name an iconography by de Jussieu is designated as the lectotype.

KEY WORDS.—*Marsilea*, Linnaean names, nomenclature, typification

Marsilea L. (Marsileaceae Mirb.: Salviniiales Bartl.) is a genus of approximately 45–50 species and has a cosmopolitan distribution, although it is infrequent in cool-temperate regions and oceanic islands (Kubitzki, 1990; Johnson, 1993; Nagalingum *et al.*, 2007).

Linnaeus published three names under *Marsilea* (*M. minuta*, *M. natans*, *M. quadrifolia*; Jarvis, 2007: 657), of which one (*M. natans*) is now placed in *Salvinia* Ség. (*Salviniaceae* T. Lestib.), as *S. natans* (L.) All. Of the other two names, only *M. quadrifolia* appears not to be typified. It is investigated here.

Typification

Linnaeus' protologue (Linnaeus, 1753: 1099) consists of a short diagnosis, with seven synonyms cited from de Jussieu (1740: 263), Guettard (1747: 62), Bauhin (1623: 362; 1651: 789), Mappus (1742: 166), Morison (1699: 619), and Matthioli *et al.* (1586: 853). All these authors (except Guettard, 1747) provided illustrations that are thus original materials.

Bobrov (1984: 20) indicated the sheet No. 1254.2 at LINN as type. Although this plant agrees with the diagnosis, the sheet lacks the relevant *Species Plantarum* number ("2" in the case of *M. quadrifolia*) including only the Linnaean script "*Marsilea quadrifolia*." So, it is to be considered a post-1753 addition to the collection and therefore not original material for the name (see Jarvis, 2007). According to Art. 9.2 of the ICNB (McNeill *et al.*, 2012) a lectotype is "... a specimen ... designated from the original material ..." and, as reported in the Art. 9.3 "... original material comprises: (a) those specimens and illustration (... published either prior to or together with the protologue) upon which it can be shown that the description or diagnosis validating the name was based ...". So, the choice by Bobrov (1984) is not correct. Johnson (1986: 35) proposed a de Jussieu collection (No. 1599-A at P-JU) as lectotype, but this would not have been studied or examined by Linnaeus (see Jarvis, 2007). In fact, although Stearn (1957: 106) reported that Linnaeus received

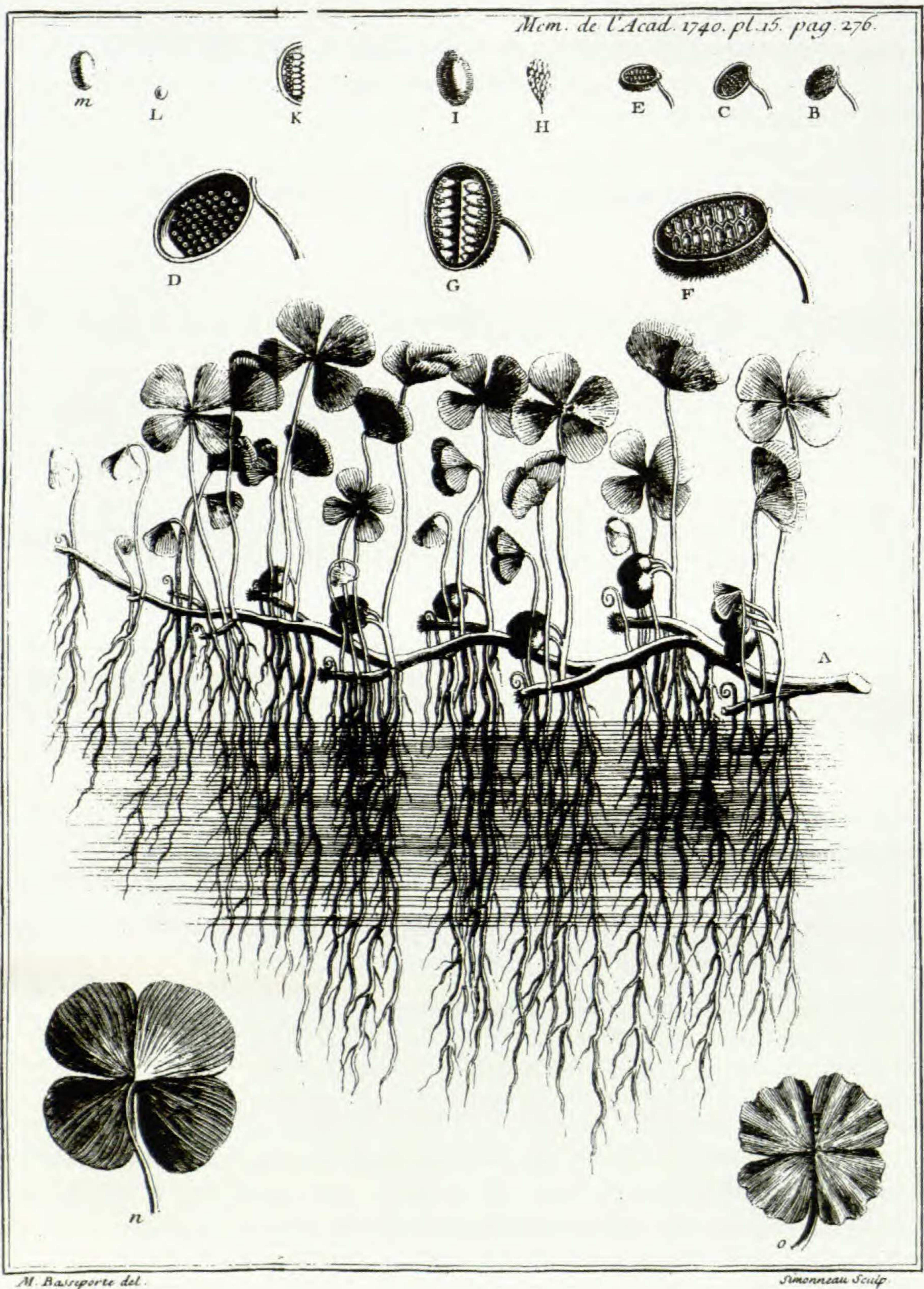


FIG. 1. Lectotype of *Marsilea quadrifolia* L. (from de Jussieu, 1740, pl. 15).

“many” specimens from de Jussieu, it is very difficult to know which specimens may have come from the author as there are no explicit annotation that might indicate this. The collection No. 1599-A at P-JU is therefore not original material for the name, and thus Johnson’s (1986) lectotypification is incorrect, too. We have been unable to trace original material in any of the other Linnaean and Linnaeus-linked herbaria.

All original material (the images cited by Linnaeus from de Jussieu, Bauhin, Mappus, Morison and Matthioli *et al.*) clearly show leaves whose blades (cruciform, consisting of two pair of opposite and sessile leaflets) are the only feature that marks the Linnaean concept of the species (“*MARSILEA foliis quaternatis*”). de Jussieu’s illustration (1740: pl. 15; see Fig. 1) is the most complete, showing a large part of a plant (letter “A” in the de Jussieu plate) including details of two leaves (letters “n” and “o”) and a series of 11 drawings (some magnified) of the sporocarps (both entire and in longitudinal or transversal sections), sori, and spores (letters “B” – “m”). This iconography also agrees with the current application of this name (e.g., Akeroyd, 1993; Johnson, 1993). Thus, it is here designated as the lectotype for the name *Marsilea quadrifolia*.

***Marsilea quadrifolia* L., Sp. Pl. 2: 1099. 1753. Lectotype (designated here):**
Lemma, pl. 15 in de Jussieu (1740: Histoire de Lemma). Fig. 1

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